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BUFFALO CORPORATE CENTER
368 Pleasantview Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

August 31, 1995

Ms. Sonia Vega U.S. Environmental Protection Agency, Region 5 77 West Jackson Boulevard Chicago, Illinois 60604

Re:

Mapco, Inc.

Athens, Illinois

CERCLIS ID No.: ILD042849547
Focused Site Inspection Prioritization

Contract No.: 68-W0-0037 TDD No.: T05-9503-205

Dear Ms. Vega:

Enclosed are the final Focused Site Inspection Prioritization (FSIP) report and enclosures for the Mapco, Inc. site, Athens, Illinois. Draft copies of this report were submitted previously to you and to Mr. Tom Crause of the Illinois Environmental Protection Agency (EIPA).

The final FSIP is presented in two volumes. Volume 1 contains the Site Evaluation Report (SER). Volume 2 contains the United States Environmental Protection Agency Recommendation Form for the site as Enclosure 1, and a transmittal memorandum and complete Hazard Ranking System (HRS) scoring package as Enclosure 2.

Should you have any questions, please call me at 716/684-8060.

Sincerely,

Chad Eich

Ecology and Environment, Inc.

L. Harmon for

xc:

Steve Skare, Ecology and Environment, Inc.

Tom Crause, IEPA



FOCUSED SITE INSPECTION PRIORITIZATION ENCLOSURES 1 AND 2

MAPCO, INC.
INDIAN POINT ROAD
ATHENS, ILLINOIS

CERCLIS ID NO.: ILD042849547

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SITE ASSESSMENT SECTION

77 West Jackson Boulevard Chicago, Illinois 60604

Date Prepared: August 31, 1995

U.S. EPA Region: 5

Contract No.: 68-W0-0037

Technical Direction Document No.: T05-9503-205

Prepared by: Ecology and Environment, Inc.

Chad Eich

E & E Program Leader: Steven Skare

Telephone No.: 312/663-9415

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BUFFALO CORPORATE CENTER 368 Pleasant View Drive, Lancaster, New York 14086 Tel: 716/684-8060, Fax: 716/684-0844

ENCLOSURE 1

U.S. ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATION FOR MAPCO, INC.
CERCLIS ID NO.: ILD042849547

U.S. ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATION

Site Name:	Mapco, Inc. Athens, Menard County, Illinois	
CERCLIS ID No.:	ILD042849547	
Report Author:	Chad Eich Ecology and Environment, Inc. 716/684-8060	
Program Leader:	Steven Skare Ecology and Environment, Inc. 312/663-9415	
U.S. EPA RECOMMENDATION	SIGNATURE	DATE
"H": High priority for further site assessme	ent	
"L": Low priority for further site assessme	nt	
"D": Deferred to other authority (RCRA, TSCA, OR NRC)	1 0 0	
"N": No further action	Jonief. Jega	9-7-95
U.S. EPA COMMENTS:	·	
Comments frouded	by IEPA are on for	le.
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ENCLOSURE 2

TRANSMITTAL MEMORANDUM WITH HRS SCORING PACKAGE FOR MAPCO, INC. ATHENS, ILLINOIS

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 NPL Characteristics Data Collection Form Mapco, Inc. - 07/25/95

Record Information

- Site Name: Mapco, Inc. (as entered in CERCLIS)
- 2. Site CERCLIS Number: ILD04284954
- 3. Site Reviewer: Ecology and Environment, Inc.
- 4. Date: 6/13/95
- 5. Site Location: Athens/Menard, Illinois (City/County, State)
- 6. Congressional District: 18
- 7. Site Coordinates: Multiple

Latitude: 40°00'08.

Longitude: 089°42'35.

Site Description

- 1. Setting: Rural
- 2. Current Owner: Private Industrial
- 3. Current Site Status: Active
- 4. Years of Operation: Active Site , from and to dates: 1955 to 1995
- 5. How Initially Identified: State/Local Program
- 6. Entity Responsible for Waste Generation:
 - Retail Activities
- 7. Site Activities/Waste Deposition:
 - Surface Impoundment
 - Tanks Above Ground
 - Discharge to Sewer/Surface Water
 - Spill

610.0

Waste Description

- 8. Wastes Deposited or Detected Onsite:
 - Pesticides/Herbicides
 - Metals

Response Actions

- 9. Response/Removal Actions:
 - Other Removal Action Has Occurred

RCRA Information

- 10. For All Active Facilities, RCRA Site Status:
 - Not Applicable

Demographic Information

- 11. Workers Present Onsite: Yes
- 12. Distance to Nearest Non-Worker Individual: > 10 Feet 1/4 Mile
- 13. Residential Population Within 1 Mile: 52.0
- 14. Residential Population Within 4 Miles: 1200.0

Water Use Information

- 15. Local Drinking Water Supply Source:
 - Ground Water (within 4 mile distance limit)
- 16. Total Population Served by Local Drinking Water Supply Source:
- 17. Drinking Water Supply System Type for Local Drinking Water Supply Sources:

PAGE:

- Private
- 18. Surface Water Adjacent to/Draining Site:
 - Lake

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 HRS DOCUMENTATION RECORD

Mapco, Inc. - 07/25/95

1. Site Name: Mapco, Inc. (as entered in CERCLIS)

2. Site CERCLIS Number: ILD04284954

3. Site Reviewer: Ecology and Environment, Inc.

4. Date: 6/13/95

5. Site Location: Athens/Menard, Illinois (City/County, State)

6. Congressional District: 18

7. Site Coordinates: Multiple

Latitude: 40°00'08. Longitude: 089°42'35.

	Score
Ground Water Migration Pathway Score (Sgw)	1.51
Surface Water Migration Pathway Score (Ssw)	2.52
Soil Exposure Pathway Score (Ss)	1.07
Air Migration Pathway Score (Sa)	0.00

		 •
Site Score		1 56
Bite Beole	· · · · · · · · · · · · · · · · · · ·	1.50

NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

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PAGE:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 GROUND WATER MIGRATION PATHWAY SCORESHEET Mapco, Inc. - 07/25/95

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Glacial Drift		·
1. Observed Release 2. Potential to Release	550	0
2a. Containment 2b. Net Precipitation 2c. Depth to Aquifer 2d. Travel Time 2e. Potential to Release	10 10 5 35	10 3 5 35
[lines 2a(2b+2c+2d)] 3. Likelihood of Release	500 550	430 430
Waste Characteristics		
4. Toxicity/Mobility 5. Hazardous Waste Quantity 6. Waste Characteristics	* * 100	1.00E+02 100 10
Targets		
7. Nearest Well 8. Population	. 50	2.00E+01
8a. Level I Concentrations 8b. Level II Concentrations 8c. Potential Contamination 8d. Population (lines 8a+8b+8c) 9. Resources 10. Wellhead Protection Area 11. Targets (lines 7+8d+9+10) 12. Targets (including overlaying aquifers) 13. Aquifer Score	** ** 5 20 ** 100	0.00E+00 0.00E+00 9.00E+00 0.00E+00 0.00E+00 2.90E+01 2.90E+01
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	1.51

^{*} Maximum value applies to waste characteristics category. ** Maximum value not applicable.

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET Mapco, Inc. - 07/25/95

	<u> </u>	
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
 Observed Release Potential to Release by Overland Flow 2a. Containment 2b. Runoff 2c. Distance to Surface Water 2d. Potential to Release by Overland	550 10 25 25 500 10 50 500	0 10 1 25 260 0 0
5. Likelihood of Release	550	260
Waste Characteristics		
6. Toxicity/Persistence 7. Hazardous Waste Quantity 8. Waste Characteristics	* * 100	1.00E+04 100 32
Targets		
9. Nearest Intake 10. Population 10a. Level I Concentrations	50 **	0.00E+00 0.00E+00
10b. Level II Concentrations 10c. Potential Contamination 10d. Population (lines 10a+10b+10c) 11. Resources 12. Targets (lines 9+10d+11)	** ** ** 5 **	0.00E+00 0.00E+00 0.00E+00 5.00E+00 5.00E+00
13. DRINKING WATER THREAT SCORE	100	0.50

^{*} Maximum value applies to waste characteristics category. ** Maximum value not applicable.

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET Mapco, Inc. - 07/25/95 PAGE:

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		·
14. Likelihood of Release (same as line 5)	550	260
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation 16. Hazardous Waste Quantity 17. Waste Characteristics	* * 1000	5.00E+08 100 320
Targets		,
18. Food Chain Individual 19. Population 19a. Level I Concentrations 19b. Level II Concentrations 19c. Pot. Human Food Chain Contamination 19d. Population (lines 19a+19b+19c) 20. Targets (lines 18+19d)	50 ** ** ** **	2.00E+00 0.00E+00 0.00E+00 6.30E-04 6.30E-04 2.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	2.02

^{*} Maximum value applies to waste characteristics category.
** Maximum value not applicable.

PREscore 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET Mapco, Inc. - 07/25/95

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	260
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc. 24. Hazardous Waste Quantity 25. Waste Characteristics	* * 1000	5.00E+08 100 320
Targets		
26. Sensitive Environments 26a. Level I Concentrations 26b. Level II Concentrations 26c. Potential Contamination 26d. Sensitive Environments (lines 26a+26b+26c) 27. Targets (line 26d)	** ** ** **	0.00E+00 0.00E+00 0.00E+00 0.00E+00
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	2.52
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	2.52

^{*} Maximum value applies to waste characteristics category.
** Maximum value not applicable.

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 SOIL EXPOSURE PATHWAY SCORESHEET Mapco, Inc. - 07/25/95

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity 3. Hazardous Waste Quantity 4. Waste Characteristics	* * 100	1.00E+04 100 32
Targets		
5. Resident Individual 6. Resident Population 6a. Level I Concentrations 6b. Level II Concentrations 6c. Resident Population (lines 6a+6b) 7. Workers 8. Resources 9. Terrestrial Sensitive Environments 10. Targets (lines 5+6c+7+8+9)	50 ** ** 15 5 ***	0.00E+00 0.00E+00 0.00E+00 0.00E+00 5.00E+00 0.00E+00 5.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	8.80E+04

^{*} Maximum value applies to waste characteristics category.

** Maximum value not applicable.

*** No specific maximum value applies, see HRS for details.

PREscore 3.0 - PRESCORE.TCL File 07/25/94 SOIL EXPOSURE PATHWAY SCORESHEET Mapco, Inc. - 07/25/95

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility 13. Area of Contamination 14. Likelihood of Exposure	100 100 500	1.00E+01 2.00E+01 5.00E+00
Waste Characteristics	. \	
15. Toxicity 16. Hazardous Waste Quantity 17. Waste Characteristics	* * 100	1.00E+04 100 32
Targets		
18. Nearby Individual 19. Population Within 1 Mile 20. Targets (lines 18+19)	1 ** **	1.00E+00 6.00E-02 1.06E+00
21. NEARBY POPULATION THREAT SCORE	**	1.70E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	1.07

^{*} Maximum value applies to waste characteristics category.
** Maximum value not applicable.

PREscore 3.0 - PRESCORE.TCL File 07/25/94 AIR PATHWAY SCORESHEET Mapco, Inc. - 07/25/95

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release 2. Potential to Release 2a. Gas Potential to Release 2b. Particulate Potential to Release 2c. Potential to Release 3. Likelihood of Release	550 500 500 500 550	0 0 0 0
Waste Characteristics		
4. Toxicity/Mobility 5. Hazardous Waste Quantity 6. Waste Characteristics	* * 100	0.00E+00 0 0
Targets		
7. Nearest Individual 8. Population 8a. Level I Concentrations 8b. Level II Concentrations 8c. Potential Contamination 8d. Population (lines 8a+8b+8c) 9. Resources 10. Sensitive Environments 10a. Actual Contamination 10b. Potential Contamination 10c. Sens. Environments(lines 10a+10b) 11. Targets (lines 7+8d+9+10c)	50 ** ** ** 5 *** ***	0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
AIR MIGRATION PATHWAY SCORE (Sa)	100	0.00E+00

^{*} Maximum value applies to waste characteristics category.

** Maximum value not applicable.

*** No specific maximum value applies, see HRS for details.

Mapco, Inc. - 07/25/95

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Mapco Site

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	. Source ID		co Site		
b. Source Type		Surf	Surface Impoundment		
c. Secondary Source Type		N	I.A.		
d. Source Vol.(yd3/gal) So	ource Area (ft2)		0.00	88000.00	
e. Source Volume/Area Value		6.77	7E+03		
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00)E+00		
g. Data Complete?			NO -		
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00)E+00		
i. Data Complete?			NO		
k. Source Hazardous Waste (Value (2e, 2f, or 2h)	k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		/E+03		

Source Hazardous Substances	Depth Liqu (feet)	id Concent.	Units
Cyanide Dieldrin	< 2 YE	i e	ppm

Documentation for Source Area:

The surface impoundment that formerly held rinsewater from fertilizer and herbicide trucks was excavated in 1992, and backfilled. Following the excavation, confirmation samples were collected to verify the fact that all contamination was removed. The drain pipe was also removed as was the associated contaminated soil. Soil was also removed from the loading area, which was then enlarged, and covered with pavement. The rinse water from the trucks is now collected in a sump, and is used for mixing with the dry feedstock.

Reference:

PREscore 3.0 - PRESCORE.TCL File 07/25/94

WASTE QUANTITY

Mapco, Inc. - 07/25/95

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No. Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1 Mapco Site	GW-SW-SE	6.77E+03	0.00E+00	6.77E+03

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PREscore 3.0 - PRESCORE.TCL File 07/25/94 WASTE QUANTITY

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Mapco, Inc. - 07/25/95

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABL

Migration Pathway	Contaminant Value	es ·	HWQVs*	WCVs**
Ground Water	Toxicity/Mobility	1.00E+02	. 100	10
SW: Overland Flow, DW	Tox./Persistence	1.00E+04	100	32
SW: Overland Flow, HFC	Tox./Persis./Bioacc.	5.00E+08	100	320
SW: Overland Flow, Env	Etox./Persis./Bioacc.	5.00E+08	100	320
SW: GW to SW, DW	Tox./Persistence	4.00E+01	100	6
SW: GW to SW, HFC	Tox./Persis./Bioacc.	5.00E+04	100	32
SW: GW to SW, Env	Etox./Persis./Bioacc.	5.00E+03	100	18
Soil Exposure:Resident	Toxicity	1.00E+04	100	32
Soil Exposure: Nearby	Toxicity	1.00E+04	100	32
Air	Toxicity/Mobility	0.00E+00	0	0

^{*} Hazardous Waste Quantity Factor Values

Note:

SW = Surface Water GW = Ground Water

DW = Drinking Water Threat HFC = Human Food Chain Threat

Env = Environmental Threat

^{**} Waste Characteristics Factor Category Values

PRESCORE 3.0 - PRESCORE TCL File 07/25/94 GROUND WATER PATHWAY AQUIFER SUMMARY Mapco, Inc. - 07/25/95

PAGE: 13

No. Aquifer ID	Туре О	verlaying No.	Inter- Connected with	Likelihood of Release	Targets
1 Glacial Drift	Non K	0	0	430	2.90E+01
Containment					
No. Source ID	HWQ Value	e Conta	inment Value		
1 Mapco Site	6.77E+0	3 10			
Conta	ainment Facto	======== or 10			
Net Precipitation	•				

Net Precipitation

Net Precipitation (inches)

N.A.

Aquifer: Glacial Drift

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

OBSERVED RELEASE

No. Well ID

Well Type

Distance

(miles)

Level of Contamination

- N/A and/or data not specified

Observed Release Factor

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Glacial Drift AQUIFER Mapco, Inc. - 07/25/95

POTENTIAL TO RELEASE

Containment		
Containment Factor	10-	
Net Precipitation		
Net Precipitation Factor	3	,
Depth to Aquifer		
A. Depth of Hazardous Substances	0.00	feet
B. Depth to Aquifer from Surface	0.00	feet
C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	
Travel Time		
Are All Layers Karst?	NO	
Thickness of Layer(s) with Lowest Conductivity	0.00	feet
Hydraulic Conductivity (cm/sec)	0.0E-00	
Travel Time Factor	35	
Potential to Release Factor	430_	

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 GROUND WATER PATHWAY WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

/alue
L.00E+02 L.00E+00

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PRESCORE 3.0 - PRESCORE.TCL File 07/25/94
GROUND WATER PATHWAY WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

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Hazardous Substances Found in an Observed Release

Well Observed Release No. Hazardous Substance Toxicity Value

Mobility Value Toxicity/ Mobility

Value

- N/A and/or data not specified

Toxicity/Mobility Value from Source Hazardous Substances:	1.00E+02
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	1.00E+02
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100

Waste Characteristics Factor Category:

PRESCORE 3.0 - PRESCORE TCL File 07/25/94 GROUND WATER PATHWAY WASTE CHARACTERISTICS

Mapco, Inc. - 07/25/95

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PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: GROUND WATER PATHWAY TARGETS FOR AQUIFER Glacial Drift Mapco, Inc. - 07/25/95

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Population by Well

	•		Distance	Level of	
No.	Well ID	Sample Type	(miles)	Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE GROUND WATER PATHWAY TARGETS FOR AQUIFER Glacial Drift Mapco, Inc. - 07/25/95

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	26.0	1.70E+00
> 1/4 to 1/2	26.0	1.10E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	109.0	3.00E+00
> 2 to 3	109.0	2.10E+00
> 3 to 4	109.0	1.30E+00

Potential Contamination Factor:

9.000

Nearest Well

Level of Contamination: Potential

Distance in miles: 0.00

Nearest Well Factor: 2.00E+01

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Wellhead Protection Area

No wellhead protection area

Wellhead Protection Area Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 SURFACE WATER PATHWAY SEGMENT SUMMARY Mapco, Inc. - 07/25/95

No. Segment ID	Segment Type	Water Type	Start Point (mi)	End Point (mi)	Average Flow (cfs)	
1 Quarry Lake	Lake	Fresh	0.00	0.50	0	
2 Indian Ck. Trib	River	Fresh	0.50	2.00	10	
3 Indian Creek	River	Fresh	2.00	12.00	10	
4 Sangamon River	River	Fresh	12.00	15.00	101	

PAGE:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 22
SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Mapco, Inc. - 07/25/95

OBSERVED RELEASE

No. Sample ID Sample Type Distance Level of Contamination (miles) DW HFC Env

Observed Release Factor

⁻ N/A and/or data not specified a

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 23 SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE Mapco, Inc. - 07/25/95

POTENTIAL TO RELEASE

Potential to Release by Overland Flow

Containment

No. Source ID	HWQ Value	Containment Value	
1 Mapco Site	6.77E+03	10	
:			

Containment Factor:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 24
SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Mapco, Inc. - 07/25/95

Distance to Surface Water

0.0 feet Distance to Surface Water: Distance to Surface Water Factor: 25 Runoff A. Drainage Area: 5.0 acres 2-year, 24-hour Rainfall: inches 2.5 в. Soil Group: Medium-textured soils with moderate infiltration rates Runoff Factor: 1

Potential to Release by Overland Flow Factor:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 25 SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE Mapco, Inc. - 07/25/95

Potential to Release by Flood

Flood Flood Potential
Containment Frequency to Release
No. Source ID HWQ Value Value Value by Flood

- N/A and/or data not specified

Potential to Release by Flood Factor: 0

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PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 26
SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value	
Cyanide	100	4.00E-01	4.00E+01	
Dieldrin	10000	1.00E+00	1.00E+04	

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 27
SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Hazardous Substances Found in an Observed Release

Sample Observed Release No. Hazardous Substance Toxicity Value Persistence Value

Toxicity/
Persistence

Value

- N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 28
SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Toxicity/Persistence Value from Source Hazardous Substances:	1.00E+04
Toxicity/Persistence Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category	30

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 29 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS Mapco, Inc. - 07/25/95

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

PREscore 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS Mapco, Inc. - 07/25/95

Level I Concentrations

Intake

Distance Along the

In-water Segment from the Probable Point of Entry (miles) Population

- N/A and/or data not specified

Population Served by Level I Intakes:

0.0

Level I Population Factor: 0.00E+00

PREscore 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 31 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS Mapco, Inc. - 07/25/95

Level II Concentrations

Distance Along the In-water Segment from the Probable Point of Entry (miles) Population

Intake

- N/A and/or data not specified

Population Served by Level II Intakes:

Level II Population Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 32 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS Mapco, Inc. - 07/25/95

Potential Contamination

Intake ID

Average Annual Flow (cfs)

Population Served

- N/A and/or data not specified

Type of Surface Water Body

Total Population Dilution-Weighted Population

- N/A and/or data not specified

Dilution-Weighted Population Served by Potentially Contaminated Intakes:

0.0

Potential Contamination Factor:

0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor:

0.00

Resources

Resource Use: YES

Resource Value: 5.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 33 SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

Hazardous Substance	Toxicity Value	Persistence Value	Bio- accum. Value	Toxicity/ Persistence/ Bioaccum. Value
Cyanide	100	4.00E-01	5.00E-01	2.00E+01
Dieldrin	10000	1.00E+00	5.00E+04	5.00E+08

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 34 SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Hazardous Substances Found in an Observed Release

Sample Observed Release
No. Hazardous Substance

Toxicity Persistence Bio-Value Value accum

accum.

Toxicity/
Persistence/
Bioaccum.

Value Value

⁻ N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 35 SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Toxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:	5.00E+08
Toxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence/Bioaccumulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	320

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 36 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS Mapco, Inc. - 07/25/95

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 37
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
Mapco, Inc. - 07/25/95

Level I Concentrations

Fishery

Annual Production (pounds)

Human Food Chain Population Value

- N/A and/or data not specified

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 38 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS Mapco, Inc. - 07/25/95

Level II Concentrations

Fishery

Annual Production (pounds)

Human Food Chain Population Value

- N/A and/or data not specified

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 39 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS Mapco, Inc. - 07/25/95

Potential Contamination

Fi	shery	Annnual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
2	Indian Ck. Trib	· · · · · · · · · · · · · · · · · · ·	River	10		1.00E-01	
3	Indian Creek	1.0	River	10	0.0	1.00E-01	3.00E-03
4	Sangamon River	1.0	River	101	0.0	1.00E-02	3.00E-04

Sum of (Pi*Di): 6.30E-03

Potential Human Food Chain Contamination Factor: 6.30E-04

Documentation for Quarry Lake Fishery:

The quarry lake is located on private property. Anyone fishing in the lake would be trespassing.

Reference:

Food Chain Individual

Location of Nearest Fishery: Indian Ck. Trib

Distance from the Probable Point of Entry: 0.50 miles

Type of Surface Water Body: River

Dilution Weight: 0.1000000

Level of Contamination: Potential

Food Chain Individual Factor: 2.00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 40 SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

Hazardous Substance		Eco- toxicity Value	Persistence Value	Bio- accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Cyanide	: •	1000	4.00E-01	5.00E-01	2.00E+02
Dieldrin		10000	1.00E+00	5.00E+04	5.00E+08

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 41 SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Hazardous Substances Found in an Observed Release

Sample Observed Release
No. Hazardous Substance

Ecotoxicity Value

Persistence Bio-Value accum. Value Ecotoxicity/
Persistence/
Bioaccum.
Value

- N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 42 SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Ecotoxicity/Persistence/Bioaccummulation Value from Source Hazardous Substances:	5.00E+08
Ecotoxicity/Persistence/Bioaccummulation Value from Observed Release Hazardous Substances:	0.00E+00
Ecotoxicity/Persistence/Bioaccummulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	320

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 43
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
Mapco, Inc. - 07/25/95

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 44
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
Mapco, Inc. - 07/25/95

Level I Concentrations

Sensitive Environ	nment	Distance from Point of Entry Sensitive Env.	to	·	Sensitiv Environm Value	
- N/A and/or o	lata not spe	cified				
Sum of Sensitive	Environment	s Values:		-	0	
Wetlands .						
Wetland	Point o	e from Probable f Entry to (miles)	·	Wetland Frontag	ds ge (mile	s)
- N/A and/or o	lata not spe	cified				
Total Wetlands Fr	contage:	0.00 Miles	Total	Wetlands	Value:	0 .
sum of Sensitive	Environment	======================================	===== nds Val	ue: 0.00E	====== E+00	====

Level I Concentrations Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 45
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
Mapco, Inc. - 07/25/95

Level II Concentrations

Sensitive Environment	Distance from Point of Entry Sensitive Env.	to	Sensitive Environment Value
- N/A and/or data not spe	cified		
Sum of Sensitive Environment Wetlands	s Values:		0
Point o	e from Probable f Entry to (miles)	Wetl Fron	ands tage (miles)
- N/A and/or data not spe	cified		
Total Wetlands Frontage:	0.00 Miles	Total Wetlan	ds Value: 0
Sum of Sensitive Environment	s Value + Wetlar	nds Value: 0.	======== 00E+00

Level II Concentrations Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 46
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
Mapco, Inc. - 07/25/95

Potential Contamination

Sensitive Environments

Type of Surface Water Body

Sensitive Environment

Sensitive Environment Value

Wetlands

Type of Surface Water Body

Sensitive Environment

Wetlands Frontage Wetlands Value

⁻ N/A and/or data not specified

PREscore 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS Mapco, Inc. - 07/25/95

Sum of

Sum of Sens. Wetland

Dilution

Type of Surface Water Body

Environment Frontage Weight Values(Sj)

Values(Wj) (Dj)

Dj(Wj+Sj)

- N/A and/or data not specified

Sum of Dj(Wj+Sj):

0.00E+00

Sum of Dj(Wj+Sj)/10:

0.00E+00

Potential Contamination Sensitive Environment Factor: 0.00E+00

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 48
SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE
Mapco, Inc. - 07/25/95

Likelihood of Exposure

No.	Source ID	Level	of	Contamination
1	Mapco Site			Level I

Likelihood of Exposure Factor: 550

Source No.	e Hazardous	Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
	Cyanide Dieldrin					1.2E+04 2.9E+01	

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 49
SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

Hazardous	Toxicity
Substance	Value
Cyanide	100
Dieldrin	10000

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: 50 SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	32

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 P. SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT TARGETS

Mapco, Inc. - 07/25/95

Targets

Level I Population: 0.0 Value: 0.00

Level II Population: 0.0 Value: 0.00

Workers: 6.0 Value: 5.00

Resident Individual: Potentia Value: 0.00

Resources: NO Value: 0.00

Terrestial Sensitive Environment Value

Terrestrial Sensitive Environments Factor: 0.00

⁻ N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE Mapco, Inc. - 07/25/95

Likelihood of Exposure

No.	Source ID	Level of Contamination	Attractiveness/ Accessibility	Area of Contam. (sq. feet)
1	Mapco Site	Level I	10	88000
Sum		ss/Accessibility s Of Contamination on Value: 20		88000

Likelihood of Exposure Factor Category: 5

Source No.	ce Hazardous	Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1 1	Cyanide Dieldrin	:				1.2E+04 2.9E+01	

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS Mapco, Inc. - 07/25/95

Source: 1 Mapco Site

Source Hazardous Waste Quantity Value: 6769.23

Hazardous	Toxicity
Substance	Value
Cyanide	100
Dieldrin	10000

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	6.77E+03
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	32

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 PAGE: SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS Mapco, Inc. - 07/25/95

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Nearby Individual

Population within 1/4 mile: 26.0

Nearby Individual Value: 1.0

Population Within 1 Mile

Travel Distance Category	Number of People	Value	
> 0 to 1/4 mile	26.0	0.0	
> 1/4 to 1/2 mile	26.0	0.0	
> 1/2 to 1 mile	0.0	0.0	

Population Within 1 Mile Factor:

PREscore 3.0 - PRESCORE.TCL File 07/25/94 AIR PATHWAY LIKELIHOOD OF RELEASE

Mapco, Inc. - 07/25/95

OBSERVED RELEASE

Distance

No. Sample ID (miles) Level of Contamination

- N/A and/or data not specified

Observed Release Factor:

PAGE:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94

AIR PATHWAY LIKELIHOOD OF RELEASE

Mapco, Inc. - 07/25/95

Gas Migration Potential

GAS POTENTIAL TO RELEASE

Source ID

Gas Gas

Gas

Gas Source Contain.Type

Source Migrtn.
Type Potent.

Potential to Rel.

57

Source Type Value (A)

Value Valu
(B) (C)

Value Sum Value (C) (B+C) A(B+C)

PAGE:

- N/A and/or data not specified

Gas Potential to Release Factor:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94
AIR PATHWAY LIKELIHOOD OF RELEASE

Mapco, Inc. - 07/25/95

Source: Mapco Site

Gaseous Hazardous Substance

Hazardous Substance Gas Migration Potential Value

PAGE:

Dieldrin

6

Average of Gas Migration Potential Value for 3 Hazardous Substances: 6.000

Gas Migration Potential Value From Table 6-7:

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PREscore 3.0 - PRESCORE.TCL File 07/25/94 AIR PATHWAY LIKELIHOOD OF RELEASE

Mapco, Inc. - 07/25/95

Particulate Migration Potential

PARTICULATE POTENTIAL TO RELEASE

Partic.Partic.

Partic.

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Partic. Source Migrtn.

Potential

Contain.Type

Potent.

to Rel.

PAGE:

Source

Type

Value (A)

(B)

Value Value Sum (C)

Value (B+C) A(B+C)

Source ID

- N/A and/or data not specified

Particulate Potential to Release Factor:

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 AIR PATHWAY LIKELIHOOD OF RELEASE Mapco, Inc. - 07/25/95

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Source: Mapco Site

Particulate Hazardous Substance

Cyanide Dieldrin

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94 AIR PATHWAY WASTE CHARACTERISTICS

Mapco, Inc. - 07/25/95

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Hazardous Substance

Toxicity Value

Gas Mobility

Value

Particulate Mobility

Value

Toxicity/ Mobility

Value

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94
AIR PATHWAY WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Hazardous Substances Found in an Observed Release

Sample Observed Release
ID Hazardous Substance

Particulate Toxicity/ Mobility Value Gas Toxicity/

Mobility Value

PAGE:

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- N/A and/or data not specified

- N/A and/or data not specified

PRESCORE 3.0 - PRESCORE.TCL File 07/25/94
AIR PATHWAY WASTE CHARACTERISTICS
Mapco, Inc. - 07/25/95

Toxicity/Mobility Value from Observed Release Hazardous
Substances:

Toxicity/Mobility Factor:

Sum of Source Hazardous Waste Quantity Values:

Hazardous Waste Quantity Factor:

0

Waste Characteristics Factor Category:

0

AIR PATHWAY TARGETS

PAGE:

PREscore 3.0 - PRESCORE.TCL File 07/25/94

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Mapco, Inc. - 07/25/95

Actual Contamination

No. Sample ID

Distance (miles)

Level of Contamination

- N/A and/or data not specified

Potential Contamination

Distance Categories Subject to Potential Contamination

Population

Value

Potential Contaminantion Factor: 0.0000

doc here

PREscore 3.0 - PRESCORE.TCL File 07/25/94 %2d %-20.20s %5.31f

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Nearest Individual Factor

Distance in miles: Potentia

- N/A and/or data not specified

doc here

Resources

doc here

PREscore 3.0 - PRESCORE.TCL File 07/25/94 %2d %-20.20s %5.31f Mapco, Inc. - 07/25/95

Actual Contamination, Sensitive Environments

Sensitive Distance Environment Sensitive Environment (miles) Value

- N/A and/or data not specified

Actual Contamination, Wetlands

Distance Wetland Wetland Acreage Value Category Acreage

- N/A and/or data not specified

(Sum of Sensitive Environments + Wetlands Values)

Mapco, Inc. - 07/25/95

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Potential Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Environment Value	Distance Weight	Weighted Value/10

(null)

Sum of Sensitive Environments Weighted Values/10:

0.000

Potential Contamination, Wetlands

Distance Wetland Wetland Distance Weighted Category Acreage Value Weight Value/10

doc here

⁻ N/A and/or data not specified